

Year 8 Mathematics Curriculum Map

Term	Topics & Units
Term 1	• Prime factorisation, find LCM and HCF using Venn diagrams • Review rounding to decimal places, Rounding to significant figures • Basic standard form • Terminating and recurring fractions to decimals • Multiplying and dividing fractions • FDP: Percentage increase/decrease • Simple interest • Original value and percentage problems
Term 2	• Proportional reasoning • Visualising with scale factors • Probability
Term 3	• Algebraic notation • Using index notation • Equations (with & without brackets) • More complex equations • Rearranging formulae • Angles: Triangles, straight lines, and angles in parallel lines
Term 4	• Angles in polygons (interior and exterior angle formulae) • Parts of a circle • Circumference and area of a circle
Term 5	• Sequences and rules • nth term of arithmetic sequence • Linear graphs • Drawing graphs of form $y=mx+c$ • Identity m and c from the graph • Grouped frequency tables
Term 6	• Comparing data • Revision • End of Year Test • Therapy • Constructions (3) • Transformations (4) • Enrichment

Curriculum Sequencing and Links

Sequencing: How Year 8 builds skills throughout the year

The Year 8 curriculum is designed to increase in complexity by building on earlier terms:

- **Numerical Foundation to Abstract Concepts:** Term 1 focuses on strengthening numerical fluency (fractions, decimals, and prime factors), which provides the necessary arithmetic skills for the "Proportional Reasoning" in Term 2 and "Algebraic Notation" in Term 3.
- **Geometric Progression:** The study of angles begins with basic lines and triangles in Term 3 and advances to complex polygon formulae and circle geometry in Term 4.
- **Algebra to Graphing:** The algebraic skills developed in Term 3 (equations and formulae) are applied in Term 5 to find the n th term of sequences and to plot linear functions on graphs.

The Year 8 curriculum also acts as a vital bridge between foundational Year 7 concepts and the more abstract applications in Year 9.

Links to Year 7 (Foundation)

- **Fractions and Decimals:** Year 8 expands on the Year 7 "Fractions, Decimals, and Percentages" unit by introducing multiplying/dividing fractions and more complex percentage problems like simple interest.
- **Algebra:** The basic "Algebraic Notation" from Year 7 is stepped up in Year 8 to include index notation and rearranging formulae.
- **Geometry:** Year 8 moves from basic "Perimeter and Area" to specific circle geometry and interior/exterior angles of polygons.

Links to Year 9 (Progression)

- **Standard Form:** Year 8 introduces "Basic standard form", which is a direct prerequisite for Year 9's work on calculating with negative powers of 10 and performing operations in standard form.
- **Algebraic Complexity:** The work on linear graphs ($y = m x + c$) in Year 8 sets the stage for Year 9's study of quadratic functions and simultaneous equations.
- **Proportional Reasoning:** The heavy focus on proportional reasoning in Year 8 Term 2 leads directly into Year 9's study of direct and inverse proportion.